

••• R E M A R K S •••

The Official Action of February 27, 2003 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowable.

By the present amendment, independent claims 1 has been changed to recite that the elastic sheet and fibrous assembly are joined to form a composite sheet structure which is thereafter stretched so as to change the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite sheet.

Independent claim 6 has been changed to recite that after the first and second webs are joined the resulting composite web is stretched so as to change the dimensions of the fibers in the first web and the elastic stretchability of the composite web.

Support for these changes to claims 1 and 2 can be found in the paragraph bridging pages 15 and 16 of applicants' specification.

Entry of the changes to the claims is respectfully requested.

Claims 1-6 are pending in this application.

Claims 4 and 5 were withdrawn by the Examiner as being directed to a non-elected invention.

Claims 1-3 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,681,645 to Strack et al. in view of U.S. Patent No. 5,116,662 to Morman.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art of record and therefore, the outstanding prior art rejection of the claims should properly be withdrawn.

Favorable reconsideration by the Examiner is earnestly solicited.

The Examiner has relied upon Strack as disclosing a laminate material with stretchability and recovery, breathability and barrier properties that comprises a nonwoven elastomeric web having at least one web of textile material discontinuously bonded to each side.

The Examiner states that Strack describes the laminate as comprising at least two textile webs, a non-clastic textile web with stretch and recovery characteristics, and a textile web with nonwoven elastomeric properties.

The Examiner concedes that Strack is silent about orthogonal stretchability and the amounts of the components of the ethylene polymer.

The Examiner has relied upon Morman as describing a multi-direction stretch composite elastic material including at least one elastic sheet which according to the Examiner "means that the sheet is elongated about 60%, i.e. stretched." The Examiner notes that Morman "describes 'nonelastic' as not falling in the definition of elastic."

The Examiner further notes that Morman "describes a composite material which refers to at least one sheet which is stretched and one necked (non-elastic) material, which are joined together in at least three locations corresponding to the instantly claimed binding spots."

In combining the teachings of Strack and Morman, the Examiner takes the position that:

It would have been obvious....to modify Strack with the web material of Morman so that the necked material, see Figure 2B, that the binding spots correspond between the sheet and the fibrous assembly and are similar in effect to the bonding locations of the two layers of elastic and non-elastic sheet motivated with the expectation that improved properties of resilient and stretch and recover, (column 4, lines 67-68), are evident when the binding spots overlap.

Strack teaches that laminated material has an improved recovery. At column 6, lines 10-14

Strack teaches that:

...after bonding, the laminate material can be stretched as much as the knit, woven or scrim web can be stretched, with the nonwoven elastomeric web providing power recovery retraction force upon relaxation of the stretching of the laminate.

In effect, Strack utilizes the elastomeric web to impart recovery to the nonelastic material.

In contrast to Strack, applicants' invention involves bonding an elastic sheet to a fibrous assembly and thereafter stretching the resulting composite sheet to the point of changing the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite sheet.

Strack does not teach, suggest or contemplate stretching the laminate material in any manner that would change its elastic stretchability, particularly its recoverability.

Applicants' invention on the other hand involves stretching the composite sheet to the point where the fibers in the fibrous assembly break apart from one another and are stretched until their dimensions change as discussed in detail in the paragraph bridging pages 15 and 16 of applicants' specification.

Strack does not suggest such a process or the resulting composite sheet.

As the Examiner is not doubt aware, an applicant for patent can be his or her own lexicographer so long as the specification supports his or her definition.

In the present situation, Morman has set forth a definition "[a]s used herein" of "nonelastic" as referring to "any material that does not fall within the definition of 'elastic,' above."

The "term 'elastic' is used herein to mean any material which, upon application of a biasing force, is stretchable, that is, elongatable, at least at least about 60 percent (i.e., to a stretched, biased

length which is at least about 160 percent of its relaxed unbiased length), and which, will recover at least 55 percent of its elongation upon release of the stretching, elongating force.”

A standard dictionary definition of “elastic” according to the website www.webster.com is “capable of recovering size and shape after deformation.”

There is nothing in the standard definition of “elastic” that qualifies the amount or percentage of size that is recovered.

It is according submitted that Morman’s definitions of “elastic” and “nonelastic” are limited to the invention disclosure of Morman.

As stated in Morman at column 4, lines 62-66:

The necked material is joined to an elongated elastic sheet at least at three locations arranged in a nonlinear configuration so that when the elongated elastic sheet is relaxed, the necked material is gathered between at least two of those locations.

In contrast to Morman, in applicants’ invention, the fibrous assembly having an inelastic stretchability is joined to the elastic sheet at binding spots “prior to stretching the resulting joined structure.”

Strack teaches bonding the nonwoven elastic web while it is not stretched or very little stretched, but thereafter fails to teach stretching the resulting laminate material to the extend of applicants’ claimed invention.

It would seem that the differences between Strack and Morman would indicate that the specific materials/components each uses is particular to the desired effect each achieves by different processing schemes. Accordingly, applicants submit that it would not be obvious to use the materials of Moran in Strack with “expectations” that are derived from the teachings of Morman.

Based upon the above distinctions between the each of the prior art references and the present invention, and the overall teachings of the prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention.

It is, therefore, submitted that any reliance upon the prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

On page 6 of the Official Action the Examiner has provisionally rejected claims 1-3 and 6 under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1-4 of copending application serial No. 09/941,566.

On page 7 of the Official Action the Examiner has provisionally rejected claims 1-3 and 6 under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1-4 of copending application serial No. 09/812,299.

In response to the provisional, obviousness-type double patenting rejections, applicants are submitting a Terminal Disclaimer.

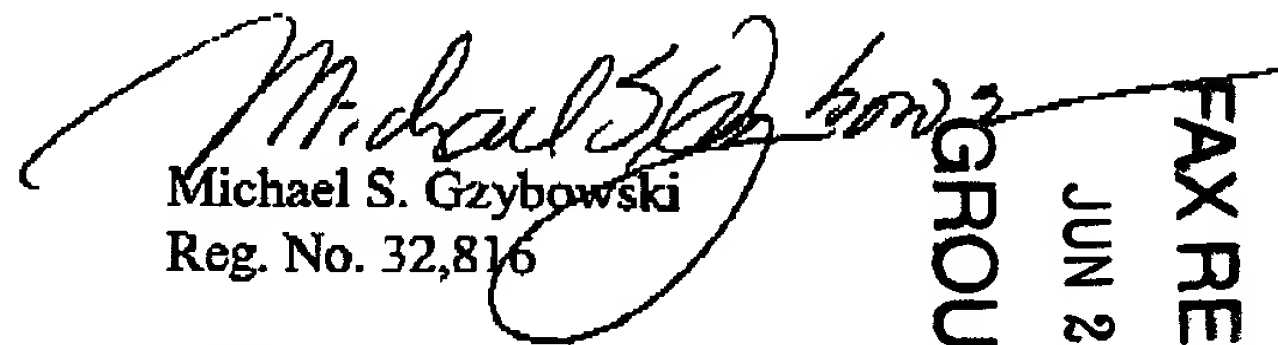
It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

The prior art cited on page 8 of the Official Action but not relied upon by the Examiner has been noted. This prior art is not deemed to be particularly pertinent to applicants' claimed invention.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved; the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 02-0385 and please credit any excess fees to such deposit account.

Respectfully submitted,


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Marked-up Copy of Changes to the Claims
as Amended on June, 25, 2003

1. (Three Times Amended) A stretchable composite sheet comprising:

an elastic sheet having a stretchability in at least one of two directions that are orthogonal to each other; and

a fibrous assembly in the form of a sheet having a stretchability in one of said at least two directions and joined to at least one surface of said elastic sheet, said fibrous assembly comprising a plurality of fibers and having an inelastic stretchability and being joined to said elastic sheet at binding spots to form a joined composite sheet structure which is thereafter stretched so as to change the dimensions of the fibers in the fibrous assembly and the elastic stretchability of the composite sheet. [prior to stretching the resulting joined structure,] said binding spots being arranged intermittently along said two directions, said fibrous assembly comprising fibers that are curved between adjacent pairs of said binding spots along said one of said at least two directions, said component fibers comprising ethylene/propylene copolymer containing ethylene at 0.5 ~ 10 % by weight, ethylene/propylene/butene containing ethylene at 0.5 ~ 10 % by weight and butene at 0.5 ~ 15 % by weight, or a mixture thereof at 100 ~ 10 % by weight.

6. (Three Times Amended) A stretchable composite sheet obtained by:

a) providing a first web made of a thermoplastic synthetic fiber and being inelastically stretchable in one direction, said first web being formed from fibers that comprise ethylene/propylene copolymer containing a 0.5-10 % by weight, ethylene/propylene/butene containing ethylene at 0.5-10

% by weight and butene at 0.5-15 % by weight, or mixtures thereof at 100-10 % by weight and having a breaking extension of at least 150 %;

b) providing a second web made of thermoplastic resin and being elastically stretchable at least in said one direction, said second web being elastically stretchable by at least 80 % in said one direction;

c) continuously feeding said first web in said one direction;

d) continuously feeding said second web in said one direction and placing said second web upon said first web;

e) joining said first and second webs having been placed upon each other in step d) to each other intermittently in said one direction and in the direction orthogonal to said one direction, at least in said one [direction;] direction to form a composite web.

f) stretching said first and second webs having been joined to each other in step e) in said one direction and said direction orthogonal to said one direction, at least in said one direction within an elasticity limit of said second web and within a breaking extension of said first [web;] web so as to change the dimensions of the fibers in the first web and the elastic stretchability of the composite web; and

g) allowing said first and second webs having been stretched in step f) contract to obtain said composite sheet.